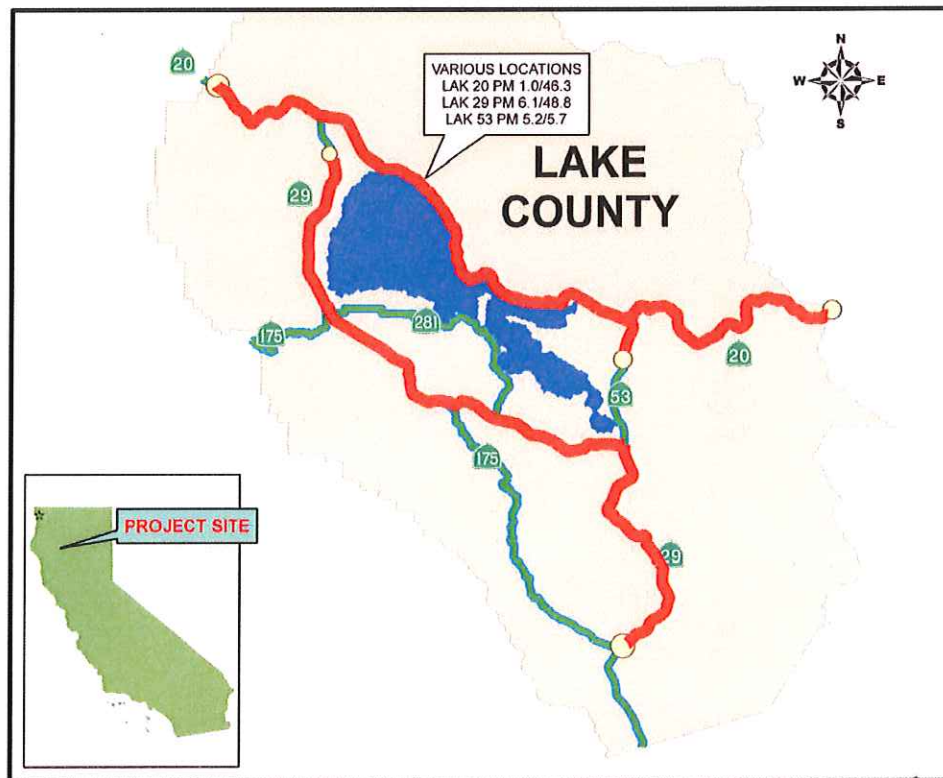


01-LAK-20, PM 1.0/46.3
01-LAK-29, PM 6.1/48.8
01-LAK-53, PM 5.2/5.7
01-42780 (01 00000 180)
Culvert Rehabilitation
201.151 PROGRAM
September 2011

PROJECT STUDY REPORT COST, SCOPE & SCHEDULE UPDATE



CULVERT REHABILITATION IN LAKE COUNTY
AT VARIOUS LOCATIONS ALONG ROUTES 20, 29, AND 53

Mike Yancheff
MIKE YANCHEFF (Project Manager)

APPROVAL RECOMMENDED:

Royal McCarthy
ROYAL MCCARTHY
(District Program Advisor)

APPROVED:

Charles C. Fielder
CHARLES C. FIELDER
DISTRICT DIRECTOR

9/14/2011
DATE


Memorandum

*Flex your power!
Be energy efficient!*

To: **Mike Yancheff**
Project Manager

Date: September 13, 2011
File: 01-LAK-20-PM 1.0/46.3
01-LAK-29-PM 6.1/48.8
01-LAK-53-PM 5.2/5.7
Culvert Rehabilitation
EA 01-42780 (01 00000 180)

From: **California Department of Transportation – District 1**
Brian Simon, Project Engineer
Advance Planning



Subject: **PROJECT COST, SCOPE AND SCHEDULE UPDATE**

Advance Planning has completed a cost, scope and schedule update for the Lake County Culvert Rehabilitation Project (EA 01-46500), which is located at various locations on State Routes 20, 29, & 53 in Lake County. The original Project Initiation Document was a PSR and was approved on July 26, 2004. The proposed improvements are part of the Drainage System Restoration Program (201.151) of the SHOPP.

The original scope of work when this project was initiated in 2000, proposed drainage rehabilitation at 34 locations. Two of these locations were open channel type drainage facilities. The remainder were culverts. During development of the PSR, the total number of project locations was reduced to 30. Contract work at the locations range from repair and/or replacement of existing culverts, down drains, drainage inlets, headwalls, rock slope protection and rock energy dissipaters.

As part of the task of updating this PSR, units within the Department with vital roles in the project's scope of work were contacted to confirm their previous assessments. These findings are summarized below.

Landscape

A Landscape Architect Assessment Sheet (LAAS) was requested for this update. The total area for erosion decreased from 32,000 m² to 15,000 m² and costs for same declined from \$64,000 to \$45,000. Highway planting costs increased from \$2,000 to \$3,000. The new LAAS is provided as an attachment to this update and landscaping improvement costs have been included in the updated Engineer's Estimate, which is also attached.

Storm Water

The North Region Storm Water Coordinator, Wesley Faubel, was contacted to request review of the project's original scope, schedule, and cost. Wes indicated the previous Storm Water Data Report would suffice for this update, but a new report would need to be prepared for PAED.

Hazardous Waste

In addition to the recommendations within the original Initial Site Assessment (October 15, 2003), the Updated Initial Site Assessment provided by North Region Office of Environmental Engineering-South indicates there may be a potential for encountering Naturally Occurring Asbestos (NOA) at two locations (16 and 33). Making every effort to reuse any materials containing NOA, as cost of disposal ranges between \$90 and \$120 per ton for offsite disposal is recommended. The Updated ISA also identified the potential for hazardous waste/material issues with any paint striping removal and aerially deposited lead (ADL). All three of these materials should be addressed in edited Standard Special Provisions (SSP), which would be included PS&E and RTL packages. The Updated ISA is attached.

Right of Way

Right of Way has provided an updated Right of Way Data Sheet (RWDS). This unit's update is based on the assumptions that impacts would be nominal to each of the affected parcels and that additional right of way requirements can be anticipated with a more defined design of the facilities. Right of Way does not anticipate utility relocation, but does expect utility verifications and has included \$10,000 in the RWDS for this purpose. From the Environmental Unit's Cost Estimate, the RWDS includes funding for Oak Compensation (\$75,000) and Biological Mitigation (\$120,000), but does not include Archaeological Mitigation (\$50,000) as this item is paid through A&E Capital Support. With this update, Total Right of Way Costs increased from \$24,540 to \$346,250-mostly due to higher mitigation and acquisition (Temporary Construction Easements and Permanent Easements) costs. The Updated RWDS is attached.

Hydraulics

District 1 Maintenance Hydraulics reviewed the PSR for locations that may be removed and/or revised due to facility repair and/or replacement work that may have occurred since the original PSR was approved in 2004. No locations were identified with Hydraulics' review. As such, all of the original locations and costs thereof have been maintained in the estimate.

Fish Passage

Capital Hydraulics queried the CalFish Database for listed fish barriers at the project locations. None of the project locations are shown as fish passage barriers.

Engineer's Cost Estimate

The project cost estimate was revised to reflect the changes in scope and impacts as described herein. Comparison of the 2004 Highway Construction Cost Index (79.1) and the 2010 Cost Index (78.4) indicates a negligible escalation rate since the project was approved. As such, most of the costs of the original itemized construction items were maintained. Exception to this occurred when significantly different costs were discovered while comparing construction items to recent bids recorded in the Contract Cost Database. In which cases, recent bids prices were used rather than cost indices.

Environmental

The Department's Environmental Unit prepared a Mini-Preliminary Environmental Analysis Report (Mini-PEAR) for this PSR Update to address any changes needed to the original Preliminary Environmental Analysis Report (PEAR). Typical changes would be the result of revisions to either environmental regulations and/or Department policies, which may have occurred since 2004. The Mini-PEAR indicates the originally anticipated environmental documentation will be unchanged. That is, barring impacts to jurisdictional wetlands, elderberry shrub or cultural resources, an Initial Study with Negative Declaration under CEQA and a Categorical Exclusion under NEPA will be required. If such impacts are identified, an Environmental Assessment under NEPA would be the required document.

The Mini-PEAR also includes updated Environmental Planning and Environmental Engineering Resource estimates.

Anticipated permits include USACE (404), RWQCB (401), and CDFG (1602). Costs for these permits were included in the RWDS, as were Oak Compensatory and Biological Mitigation costs. Archaeological Mitigation is included in the cost estimate as an A&E Capital Support cost.

Safety Review

This project update memo was reviewed by the current Safety Review Committee Chairman. The Chairman's update memo, which is attached, indicates the original memo still applies. The memo also adds some additional safety related considerations for the project.

Please see the attached documents for the updated cost, schedule and scope changes to this project.

If you have any questions please, contact me at (707) 441-3935.

.

Attachments:

- Engineer's Estimate Update
- Mini-PEAR
- R/W Datasheet Update
- Landscape Architecture Assessment Sheet Update
- Updated Initial Site Assessment
- Storm Water Concurrence
- Safety Review Committee Memo
- Programming Sheet

ORIGINAL PSR LOCATION <ftp://caddftp.dot.ca.gov/Upload/Dist01/01-42780k/>

cc: Ilene Poindexter, Advance Planning Division Chief

ENGINEER'S COST ESTIMATE

CULVERT REHABILITATION

September 13, 2011

VARIOUS LOCATIONS ON:

01-LAK-20-PM 1.0/46.3
01-LAK-29-PM 6.1/48.8
01-LAK-53-PM 5.2/5.7

201.151 Program (Drainage System Restoration)

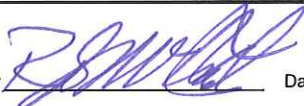
Project Description: Culvert rehabilitation on various routes in Lake County
EA 01-42780

Alternative 1: Culvert Rehabilitation

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS (2011)	\$3,070,000
TOTAL STRUCTURE ITEMS	\$0
SUBTOTAL CONSTRUCTION COSTS (2011)	\$3,070,000
TOTAL RIGHT OF WAY ITEMS (2011)	\$347,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$3,417,000
CALL	\$3,420,000

Reviewed by District Program Manager



Date

17 SEP 2011

Approved by Project Manager



Date

9/14/11

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost
none				
Subtotal Earthwork				\$0

Section 2 Pavement Structural Section	Quantity	Unit	Unit Price	Item Cost
Place Misc AC	10	M2	\$150	\$1,500
Imported Borrow	40	M3	\$46	\$1,824
Subtotal Pavement Structural Section				\$3,324

Section 3 Drainage	Quantity	Unit	Unit Price	Item Cost
600 mm APC	553	M	\$430	\$237,790
600 mm Culvert (Jacked)	147	M	\$2,500	\$367,500
900 mm Culvert APC	38	M	\$500	\$19,000
1200 mm Culvert APC	34	M	\$590	\$20,060
600 mm Culvert APC DD	66	M	\$320	\$21,120
530 mm Liner	221	M	\$520	\$114,998
Invert Paving	114	M	\$125	\$14,250
600 mm FES	14	EA	\$440	\$6,160
900 mm FES	1	EA	\$850	\$850
OMP DI	4	EA	\$2,000	\$8,000
Minor Concrete DI	16	M3	\$1,900	\$30,400
Misc. Iron & Steel	1,300	KG	\$5.5	\$7,150
Minor Concrete HW	25	M3	\$1,900	\$47,500
Remove DD	2	EA	\$700	\$1,400
Remove HW	2	EA	\$880	\$1,760
Remove DI	14	EA	\$2,000	\$28,000
Remove Culvert	20	EA	\$2,000	\$40,000
Abandon Culvert	3	M	\$1,000	\$3,000
Grade Exist Channel	100	M	\$20	\$2,000
Excavate Ditch	25	M3	\$90	\$2,250
300 mm CSP Slotted Drain	20	M	\$410	\$8,200
RSP	448	M3	\$105	\$47,040
RSP Fabric	610	M2	\$5	\$3,050
Culvert Markers	54	EA	\$60	\$3,240
Flood Gate	5	EA	\$3,000	\$15,000
Place Cofferdam	5	EA	\$5,000	\$25,000
Subtotal Drainage				\$1,074,718

Section 4 Specialty Items	Quantity	Unit	Unit Price	Item Cost
Erosion Control	15,000	M2	\$3	\$45,000
Construction BMP's (2% Construction Items)	1	LS	\$37,000	\$37,000
Prepare WPCP & SWPPP	30	ea/loc	\$2,000	\$60,000
Storm Water Sampling	1	LS	\$20,000	\$20,000
Hazardous Waste Mitigation	1	LS	\$5,000	\$5,000
Archaeological Mitigation	1	LS	\$50,000	\$50,000
Highway Planting Mitigation	1	LS	\$3,000	\$3,000
Resident Engineer Office Space	1	LS	\$24,000	\$24,000
Subtotal Specialty Items				\$244,000

Section 5 Traffic Items	Quantity	Unit	Unit Price	Item Cost
TMP	134	day	\$2,500	\$335,000
PCMS	4	ea	\$5,000	\$20,000
Construction Area Signs	3	LS	\$5,000	\$15,000
COZEOP	134	day	\$2,240	\$300,160
Subtotal Traffic Items				\$670,160

TOTAL SECTIONS 1 thru 5	\$1,992,202
--------------------------------	--------------------

Section 6 Minor Items		
	\$1,992,202 x (10%) =	\$199,220
	(Subtotal Sections 1 thru 5)	
TOTAL MINOR ITEMS		\$199,220

Section 7 Roadway Mobilization		
	\$2,191,422 x (10%) =	\$219,142
	(Subtotal Sections 1 thru 6)	
TOTAL ROADWAY MOBILIZATION		\$219,142

Section 8 Roadway Additions	Quantity	Unit	Unit Price	Item Cost
Supplemental Work				
			\$2,191,422 x (5%) =	\$109,571
			(Subtotal Sections 1 thru 6)	
Contingencies				
			\$2,191,422 x (25%) =	\$547,856
			(Subtotal Sections 1 thru 6)	
TOTAL ROADWAY ADDITIONS				\$657,427

TOTAL ROADWAY ITEMS	\$3,068,000
----------------------------	--------------------

CALL \$3,070,000

II. STRUCTURES ITEMS

SUBTOTAL STRUCTURES ITEMS		\$0
(Sum of Total Cost for Structures)		

Railroad Related Costs:	NA	
SUBTOTAL RAILROAD ITEMS		\$0

TOTAL STRUCTURES ITEMS	\$0
-------------------------------	------------

III. RIGHT OF WAY ITEMS

A. Acquisition	\$106,250
B. Mitigation acquisition & credits	\$195,000
C. Project Development Permit Fees	\$35,000
D. Utility Relocation	\$10,000
E. Relocation Assistance (RAP)	\$0
F. Clearance/Demolition	\$0
G. Title and Escrow Fees	\$0
F. Construction Contract Work	\$0

TOTAL RIGHT OF WAY ITEMS	\$346,250
---------------------------------	------------------

CALL \$347,000

Anticipated Date of Right of Way Certification

August 1, 2015

Estimate Prepared By: Brian Simon 441-3935

Estimate Checked By: Jeff Pimentel 445-6358

Mini-Preliminary Environmental Analysis Report

Project Information

District 01 County LAK Route 20, 29, 53 Post Mile 1.0/46.3, 6.1/48.8, 5.2/5.7 EA 01-42780

Project Title: Lake County Culvert Rehabilitation

Project Manager Mike Yancheff Phone # 707-441-2097

Project Engineer Brian Simon Phone # 707-441-3935

Environmental Branch Chief Tammy Massengale Phone # 530-741-4041

Project Description

Purpose and Need: This project is needed to maintain and repair existing drainage facilities in order to prevent more costly roadway repairs and maintenance in the future. The identified culverts (30) have been steadily deteriorating thus requiring rehabilitation or replacement to prevent further damage to the culverts and surrounding roadbed. In addition, the identified drainage ditches have insufficient capacity and need rehabilitation.

Description of work: The proposed project will include the repair and/or replacement of existing culverts, down drains, drainage inlet headwalls, rock slope protection (RSP), rock energy dissipater (RED) and in some locations minor ditch excavation.

Anticipated Environmental Approval

CEQA

☒ Initial Study with Negative Declaration

NEPA

☒ Categorical Exclusion

Summary Statement

In order to identify environmental issues, constraints, costs and resource needs, a mini-PEAR (Preliminary Environmental Analysis Report) was prepared for the project. Potential construction staging areas and disposal/borrow sites will need to be identified in the PA&ED phase for environmental review. Information contained in this analysis has been derived from prior studies and an updated Environmental Study Request. Due to resource constraints, technical specialists were not assigned to this project.

It is anticipated an Initial Study with a Negative Declaration and a Categorical Exclusion will apply to this project. Based on existing workload and available resources, it is anticipated to take 18 months to complete the environmental process. If there are impacts to jurisdictional wetlands, elderberry shrubs or cultural resources, the preparation of an Environmental Assessment pursuant to NEPA may be required. If possible, Environmental Planning would like to receive the ESR no later than February of a given year in order to complete spring surveys.

Special Considerations

Biology: The dominant vegetation communities within the project area are the blue oak woodland, valley-foothill grassland and chaparral. Oak woodlands have the potential to provide either day roost or night roost sites for sensitive bat species.

A number of stream courses, lakeshore areas, and potential wetlands exist within the project vicinity. Stream courses and lakeshore areas typically support riparian trees and shrubs. Potential wetlands within the project vicinity include perennial and seasonal wetlands. These wetlands have been known to be habitat for special status plant species.

In water work, or work within the bed, banks, or riparian corridors of waterways within the project area has the potential to directly or indirectly impact sensitive aquatic resources including sensitive fish species. In water work will require the consultation with U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game, (CDFG), U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the National Marine Fisheries Service (NMFS). This project will require the following permits: USACE (404), RWQCB (401), CDFG (1602). The costs associate with the permits and appropriate mitigation are outlined in Attachment A.

Archaeology: Generally, this area is known to be extremely sensitive for prehistoric and historic resources and also for Native American values. There are at least four locations that will need to be reviewed by an architectural historian for potential historical significance.

Hazardous Waste: An updated Initial Site Assessment (ISA) will be required to address the potential for hazardous waste.

Water Quality: A water quality assessment will need to be completed for this project. It is important that appropriate Construction Site BMPs are deployed during construction activities to avoid/minimize impacts. It is not anticipated that any water quality impacts will result since BMP measures will take place during soil disturbance. If site dewatering is required, a dewatering plan is required. If the contractor installs batch plants or conducts rock crushing within our right-of-way, an Air Space Lease Agreement will be required prior to the start of construction activities.

Air: This project is anticipated to be exempt from all air quality conformance analysis requirements. A technical memo will be prepared during PA&ED.

Noise: This project is not anticipated to require a project level noise analysis. A technical memo will be prepared during PA&ED.

Visual Resources: A Visual Assessment is not anticipated at this time. However, when the ESR is submitted, a request will be sent to Landscape for assessment.

Disclaimer

This report is not an environmental document. The above recommendations are based on the project description provided in this report. The discussion and conclusions provided by this mini-PEAR are approximate and are based on field reviews and record reviews to estimate the potential for probable effects. The purpose of this report is to provide a preliminary level of environmental

analysis to supplement the Project Initiation Document. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report.

Prepared by:

Jimmy Massengale

Tammy Massengale, Chief, Office of Environmental Support

Date: 6/3/11

Reviewed by:

Mike Yancheff

Mike Yancheff, Project Manager

Date: 6/3/11

PEAR Environmental Commitments Cost Estimate

Dist.-Co.-Rte.-KP/PM: 01 LAK 20, 29, 53 PMs 10./46.3, 6.1/48.8, 52./52.7 EA: 01-42780

Project Description: This project proposes to upgrade the roadway geometrics to current standards for design speed of 55 mph and rehabilitate the existing pavement to extend the service life of the pavement. The existing vertical alignment and shoulder widths do not meet current design standards and the existing pavement is exhibiting signs of distress and will further deteriorate without action.

Person completing form/District Office: Tammy Massengale, North Region
Office of Environmental Support

Project Manager: Ali Kiani Phone number: 530-741-4587

	Compensation/ Mitigation	Permit & Agreement
Fish & Game 1600 Agreement		\$ 25, 000
Coastal Development Permit		
State Lands Agreement		
Section 401 RWQCB Permit		\$ 10,000
COE 404 Permit- Nationwide		
COE 404 Permit- Individual		
COE Section 10 Permit		
COE Section 9 Permit		
Other: FWS Biological Opinion		
Oak Compensation	\$ 75,000	
Special landscaping		
Archaeological	\$ 50,000	
Biological	\$ 120,000	
Historical		
Wildlife Undercrossing		
Wetland/riparian		
TOTAL (Enter zeros if no cost)	\$ 245,000	\$ 35,000

- Please note, the archaeological mitigation will be paid using A&E – Capital Support dollars.

Memorandum

*Flex your power!
Be energy efficient!*

To: ILENE POINDEXTER
D1 Advanced Planning Senior

Date: June 17, 2011

Attention BRIAN SIMON
Project Engineer

File: 01-LAK-20,29,53-PM VARIOUS
E.A. 42780K

Alternate No. 1 - Repair/replace
existing culverts, ditches, down
drains, drainage inlets, headwalls,
rock slope protection and rock
energy dissipaters.

CULVERT REHABILITATION

From: KAREN E. HAWKINS,
Assistant Chief, Right of Way
Eureka/Redding

Subject: Current Estimated Right of Way Costs


We have completed an estimate of the right of way costs for the above referenced project based on information received from you on April 12, 2011. The attached estimate is based on the following assumptions and limiting conditions:

RW mapping was not provided. Based upon 2004 datasheet info and small areas of impact, an assumption was made that each parcel would be considered nominal.

The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.

Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the estimate.

Right of Way Lead Time will require a minimum of **14** months after we receive project first appraisal maps, utility conflict maps, and the necessary environmental clearance and freeway agreements have been approved and obtained. Additionally a minimum of **11** months will be required after receiving the last appraisal map to Right of Way for certification. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.


KAREN E. HAWKINS,
Assistant Chief, Right of Way
Eureka/Redding

Attachments:
Right of Way Data Sheet

cc. MIKE YANCHEFF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

REVISED



Date: June 17, 2011

01-LAK-20,29,53-PM VARIOUS
E.A. 42780K
CULVERT REHABILITATION

1. Right of Way Cost Estimate: **Alternate No. 1 - Repair/replace existing culverts, ditches, down drains, drainage inlets, headwalls, rock slope protection and rock energy dissipaters.**

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$106,250	5%	\$129,944
B. Mitigation acquisition & credits	\$195,000	5%	\$238,486
C. Project Development Permit Fees	\$35,000	5%	\$42,805
Subtotal	\$336,250		\$411,235
D. Utility Relocation (State Share) (Owner's share: _____)	\$10,000	5%	\$12,230
E. Relocation Assistance (RAP)	\$0		\$0
F. Clearance/Demolition	\$0		\$0
H. Title & Escrow	\$0		\$0
I. Total Estimated Right of Way Cost	\$346,250	Rounded	\$423,000
J. Construction Contract Work	\$0		

2. Current Date of Right of Way Certification

August 1, 2015

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements	
X 0		U4 - 1 0	None	X
A 17		- 2 0	C&M Agrmt	
B 0		- 3 0	Svc Contract	
C 0	0	- 4 0	Easements	
D 0	0	U5 - 7 6	Rights of Entry	
		- 8 0	Clauses	
		- 9 0		
Total 17				
Areas:			Misc. R/W Work	
R/W: 2127 sm			RAP Displ	N/A
Excess: N/A	No. Excess Pcls: 0		Clear/Demo	N/A
Mitigation: N/A			Const Permits	N/A
			Condemnation	2
			USA Involvement	No

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

4. Are there any major items of construction contract work?

Yes _____ No X

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).

No RW maps were provided.

6. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes _____ No X

7. Is there an effect on assessed valuation?

No X

Yes _____

Not Significant _____

8. Are utility facilities or rights of way affected?

Yes X

No _____

Utility relocations are not anticipated; however, utility verifications will be required.

9. Are railroad facilities or rights of way affected?

Yes _____

No X

10. Were any previously unidentified sites with hazardous waste and/or material found?

Yes _____ None Evident X

11. Are RAP displacements required?

Yes _____

No X

No. of single family

No. of business/nonprofit

No. of multi-family

No. of farms

Based on Draft/Final Relocation Impact Statement/Study dated N/A
it is anticipated that sufficient replacement housing (will/will not) be available without
Last Resort Housing.

12. Are there material borrow and/or disposal sites required?

Yes _____ No X

13. Are there potential relinquishments and/or abandonments?

Yes _____ No X

14. Are there any existing and/or potential airspace sites?

Yes _____ No X

15. What type of mitigation is required for the project?

Oak compensation (\$75,000), Archeological (\$50,000), and Biological (\$120,000). Archeological mitigation will be paid using A&E Capital support dollars and is therefore not included in the estimated RW cost.

16. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if district proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

Right of Way Lead Time will require a minimum of 14 months after we receive first appraisal maps, utility conflict maps, and the necessary environmental clearance and freeway agreements have been approved and obtained. Additionally a minimum of 11 months will be required after receiving the last appraisal map to Right of way for certification.

17. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No _____

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

Evaluation Prepared By:

Right of Way: Kevin Waxman
KEVIN WAXMAN

Date 6/20/2011

Reviewed By:

RW Planning and Management: Kathleen Meistrell
KATHLEEN MEISTRELL

Date 6/21/11

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.

RECOMMENDED FOR APPROVAL

Leota K. Lovelace
LEOTA K. LOVELACE,
Senior Right of Way Agent
Project Delivery Branch
Eureka

20 JUN '11
Date

APPROVED:

Karen E. Hawkins
KAREN E. HAWKINS,
Assistant Chief, Right of Way
Eureka/Redding

June 22, 2011
Date



**NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**
03-LAND-0002 (Rev. 3/03)

TO: Brian Simon FROM: James Williamson Unit/Senior TE Name: 03-0381 T. Chris Johnson Project Manager: Mike Yancheff	CO: LAK DISTRICT: 01 DATE: 6/6/2011 EA: 01-42780K	RTE: 20/20/53	KP: 1.6/74.5 9.8/78.5 8.4/9.2	PM: 1.0/46.3 6.1/48.8 5.2/5.7
PROJECT SEPARATION: <input type="checkbox"/> Landscape as part of roadway work EA <input type="checkbox"/> Landscape under separate EA (Follow-up)	PROJECT: TYPE: SHOPP PROJECT MILESTONE: PID			

PROJECT DESCRIPTION:

This is a culvert rehab project that proposes to do the following: repair and/or replacement of existing culverts, down drains, drainage inlets, headwalls, rock slope protection and rock energy dissipaters.

AREA (M2) FOR HIGHWAY PLANTING:	<u>unknown at this time.</u>		
APPROXIMATE AREA (M2) FOR EROSION CONTROL:	<u>15,000 M²</u>		
PLANT COUNT FOR MITIGATION PLANTING:			
LANDSCAPE FREEWAY STATUS:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
HIGHWAY PLANTING IS:	<input type="checkbox"/> Warranted	<input checked="" type="checkbox"/> Not Warranted	
SCENIC HIGHWAY STATUS:	<input type="checkbox"/> Officially Designated	<input checked="" type="checkbox"/> Eligible	<input type="checkbox"/> Not Designated
REVEGETATION REQUIRED?	<input type="checkbox"/> Permit Required	<input type="checkbox"/> Offset of Visual Impact	<input type="checkbox"/> Other (Forest Service, BLM, etc.)
BIOLOGIST CONTACT:	_____		
DATE OF CONTACT:	_____		
REVEG. SPECIALIST CONTACT:	_____		

ADJACENCY TO BILLBOARDS:
<input checked="" type="checkbox"/> Project area is adjacent to outdoor advertising. <input type="checkbox"/> Project area is not adjacent to outdoor advertising.

WATER AND POWER AVAILABILITY: N/A

IS THERE (E) IRRIGATION THAT WILL BE IMPACTED BY THIS PROJECT: ☐ Yes ☒ No

DESIGN FOR MAINTENANCE SAFETY: N/A

CONTEXT SENSITIVITY:
<input type="checkbox"/> It is determined that the project will involve consideration of highway aesthetics and will require further evaluations pertaining to specific roadside enhancements.
<input checked="" type="checkbox"/> No foreseen issues with highway aesthetics <input type="checkbox"/> Other _____

COOPERATIVE MAINTENANCE AGREEMENTS:			
Project may involve additional tasks indicated	<input type="checkbox"/> Visual Simulation	<input checked="" type="checkbox"/> Erosion Control	<input checked="" type="checkbox"/> SWPPP/NPDES
	<input checked="" type="checkbox"/> Replacement Planting	<input type="checkbox"/> Field Visit	<input type="checkbox"/> Context Sensitive Solutions/Aesthetics
	<input checked="" type="checkbox"/> Contour Grading	<input checked="" type="checkbox"/> Cost Estimate	<input type="checkbox"/> Landscape Evaluation



NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET
03-LAND-0002 (Rev. 3/03)

COST INFORMATION:

- ☒ Highway Planting/Mitigation (1-2 year Plant Establishment)
☒ Erosion Control
☐ Slope Protection
☐ Aesthetic Treatment

\$ 3,000
\$45,000
\$
\$ /m²
TOTAL \$ 48,000

OTHER RELATED INFORMATION:

- ☒ Landscape Architecture Resource Estimate:

It has been estimated that there will be a soil disturbance of 500 square meters per culvert location. A per meter cost of \$3.00 has been estimated to adequately cover any erosion control items needed at the various culvert locations.

ROADSIDE VEGETATION MANAGEMENT TREATMENT NEEDS:

- ☐ Extended Gore Areas
☐ Guardrails and Signs
☐ Medians
☐ Road Edge
☐ Side Slopes/Embankment Slopes

(See: <http://www.dot.ca.gov/hq/LandArch/roadside/index.htm> for potential treatment measures)

PREPARED BY: James Williamson

DATE: 6/6/2011

CONCURRED BY: Mike Yonkeff
(Project Manager)

DATE: 6/6/11

APPROVED BY: [Signature]

DATE: 6-6-11

(Landscape Architecture or Engineering Services Branch Chief)

M e m o r a n d u m

To: Brian Simon
Project Engineer
1656 Union Street
Eureka CA 95501

Date: June 15, 2011

File No: 01-Lak-20/29/53
PM 1.0/46.3, 6.4/48.8, 5.2/5.7
Culvert Rehabilitation Project

EA: 01-42780K

From: DEPARTMENT OF TRANSPORTATION
Office of Environmental Engineering – South (OEES)

Subject: Amended Initial Site Assessment (AISA)

Per your request, OEES has completed an AISA for your above referenced project. The project proposes to rehabilitate 34 culverts on State Routes 20, 29, and 53. Construction will involve the repair or replacement of existing culverts, ditches, down drains, drainage inlets, headwalls, rock slope protection, and rock energy dispensers. Soil, ACC/PCC, and vegetation will be disturbed. Temporary construction easements may be required.

Based on this review, two minor hazardous waste/material issue, thermoplastic and/or paint striping removal (paint/striping), and aerially deposited lead (ADL) have been identified for the entire proposed project and one minor issue Naturally Occurring Asbestos (NOA) has been identified for two locations, location 16 and 33. To address these issues SSP 15-301 – non hazardous paint/striping removal, SSP 15-027 - non hazardous ADL, SSP S5-750 – NOA legal and regulatory notification, and SSP 19-910 – NOA management will need to be edited and included in the PS&E and RTL listing packages. It should be noted that for locations 16 and 33, every effort should be made to reuse excess soil within the project limits as disposal of NOA, if present, will cost from \$90 to 120 dollars a ton to dispose of off-site. The project may be constructed without any other NSSP's, SSP's, or restrictions from OEES.


If there are any significant changes to the project scope, or if new information is identified, please contact the OEES, as soon as reasonably possible so the significance of the information and the need for additional studies can be assessed. If you have any questions or comments, please feel free to call me at (530) 741-4556.




Mark Melani,
Office of Environmental Engineering – South

cc: File

**Wesley
Faubel/D03/Caltrans/CAGov**
05/26/2011 01:57 PM

To Brian Simon/D01/Caltrans/CAGov@DOT
cc Sheila Enright/D01/Caltrans/CAGov@DOT
bcc
Subject Re: 01-42780K LAK 20, 29 & 53 (PM 1/46.3, 6.1/48.8 & 5.2/5.7) Culvert Rehab: SWDR Update 

History:  This message has been replied to.

Brian,

After reviewing the SWDR, I think that this report will suffice for an updated PSR.

Even though the requirements have changed substantially in the years since the report has been signed, I think that we will actually have fewer requirements on this project than what was in effect in 2004. I see no change to your estimate.

A new report will need to be prepared for PAED.

Thanks,

Wes Faubel, PE, CPSWQ
Storm Water Coordinator
NR Office of Eng Svcs
530 741 4270
530 218 3689 (Cell)

Brian Simon/D01/Caltrans/CAGov

**Brian
Simon/D01/Caltrans/CAGov**
05/25/2011 10:24 AM

To Wesley Faubel/D03/Caltrans/CAGov@DOT
cc
Subject 01-42780K LAK 20, 29 & 53 (PM 1/46.3, 6.1/48.8 & 5.2/5.7) Culvert Rehab: SWDR Update

Wes

We spoke a couple of weeks ago on a PSR update I am working on at the moment. I also have two other dated, but approved PSRs that need updating too. I know storm water requirements have changed significantly since these were originally completed. However, I wanted to run these two project's SWDRs by you and ask if they will generally work for the purposes of updating the cost, scope, schedule, and resources required for these two projects.

To that end, I have attached a pdf of the Culvert Rehab PSR which includes the SWDR that was done at the time. Please review this document and provide comments on any effects that will impact the outlined cost, scope, and schedule of the project by June 17, 2011. The resource sheet will be circulated separately.

Thanks

Brian Simon, P.E.

Project Engineer

MEMORANDUM

To: Brian Simon

Date: September 6, 2011

File: 01-Lak-20-PM 1.0/46.3
01-Lak-29-PM 6.1/48.8
01-Lak-53-PM 5.2/5.7
EA: 01-42780K
Culvert Rehabilitation

From: DEPARTMENT OF TRANSPORTATION
North Region – Safety Review Committee Chairman, Eureka

Subject: Safety Review Comments

On September 6, 2011 Steven Hughes, Chairman of the Safety Review Committee for District 1 projects, reviewed the draft Project Study Report for the above referenced project.

This project proposes to replace, revise, or repair drainage systems (culverts) on SR 20, SR 29, and SR 53 at various locations in Lake County.

Comments and recommendations are as follows:

(Comments below can be evaluated in the appropriate project development phase in which they are best addressed.)

Consider the potential need for cable railing at headwalls.

Clear recovery zone requirements should be considered in the design of the culvert inlet and outlet treatment (i.e. flush drainage inlets, flared end sections instead of headwalls, and locating (or shielding) CIDH piles anchoring down drains).

As the design proceeds, consider passage of motorist and bicyclist with regard to expected construction operations (i.e. available space, use of trench plates, allowable period prior to final paving, advance flaggers, etc.).

Depending upon the actual work proposed, regarding pipe jacking and other culvert rehabilitation work, review and classification by the Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit for potential presence of flammable gas and vapors may be necessary.

Please retain a copy of this memorandum in the project files.

If you have questions regarding these comments and recommendations please see me or call me at (707) 445-6418.

____ (Original Signed by Steven Hughes)____
Safety Review Committee Chairman, Eureka

cc: Matt Brady
Gary Banducci
Barbara Renan
Mike Yancheff
Illene Poindexter
Alan Escarda
Jim McGee
Royal McCarthy
Curtis Coburn
Ralph Martinelli
Darron Hill
Troy Arseneau
Marie Brady
Carl Mindus

PROGRAMMING SHEET - 2011/2012

EA: 01-42780

Proj Name: Lake County Culvert Rehabilitation

 Project Manager: Mike Yancheff
 Co-Rte-PM: LAK-020- 001.0/ 046.3

Date: 09/13/2011

Type: SHOPP

PROJECT SCHEDULE

MILESTONE		DATE (STATUS)
Begin Environmental Document	M020	01/01/2012 (T)
Begin Project Report	M040	10/01/2011 (T)
Circulate Environmental Document (DED)	M120	01/01/2013 (T)
Project Approval & Environmental Document (PA&ED)	M200	06/22/2013 (T)
District Submits Bridge Site Data to Structures	M221	
Right of Way Maps	M224	09/01/2015 (T)
Regular Right of Way	M225	11/01/2015 (T)
District Plans, Specifications & Estimates to DOE	M377	09/01/2015 (T)
Draft Structures Plans, Specifications & Estimates	M378	
District Plans, Specifications & Estimates (PS&E)	M380	11/01/2015 (T)
Right of Way Certification	M410	02/15/2016 (T)
Ready to List (RTL)	M460	02/15/2016 (T)
Headquarters Advertise (HQ AD)	M480	04/15/2016 (T)
Approve Construction Contract	M500	06/15/2016 (T)
Contract Acceptance (CCA)	M600	06/15/2017 (T)
End Project	M800	09/15/2018 (T)

ESTIMATE	DATE	AMOUNT
ROADWAY	08/29/11	\$ 3070
BRIDGE		\$ 0
Subtotal Const		\$ 3070
RIGHT OF WAY	06/17/11	\$ 423
MITIGATION		\$ 0
Subtotal RW		\$ 423
GRAND TOTAL		\$ 3493

EXISTING PROGRAMMING	
PAED	\$
PS&E	\$
RW - Sup	\$
RW - Cap	\$
Const - Sup	\$
Const - Cap	\$

*Does not apply to RW Capital + Not Escalated ++ Only Escalated to 1 year into Future

PROJECT COSTS BY SB45 CATEGORY

CAPITAL COST ESTIMATE (Escalation Factor)	Prior Yrs+	11/12+	12/13 (3.5%)	13/14 (3.5%)	14/15 (3.5%)	15/16 (3.5%)	Future++ (3.5%)	Total	
Right of Way					100	323		\$ 423	
Construction						3522		\$ 3,523	
CAPITAL COSTS TOTAL								\$ 3,946	
SUPPORT COSTS (Escalation Factor)			(1.5%)	(1.5%)	(1.5%)	(1.5%)	(1.5%)		Sup/Cap
PAED	50	373	386	57	13			\$ 880	22.30%
PS&E			22	504	452	368		\$ 1,346	34.11%
Right of Way						508	238	\$ 746	18.91%
Construction						43	1092	\$ 1,135	28.76%
SUPPORT COSTS TOTAL								\$4,107	104.08%
TOTAL PROJECT COSTS								\$ 8,053	

PROJECT SUPPORT IN PYS

	Prior Yrs	11/12	12/13	13/14	14/15	15/16	Future	Total	PY %
Environmental	0.06	1.36	2.01	1.19	0.49	0.28	0.84	6.23	19.32%
Design	0.06	0.77	0.57	1.33	1.25	0.75	0.31	5.04	15.63%
Engineering Services	0.00	0.20	0.18	0.27	0.27	0.51	0.25	1.68	5.21%
Surveys	0.01	0.21	0.16	0.33	0.33	1.90	1.44	4.38	13.59%
Right of Way	0.00	0.12	0.11	0.16	0.11	1.50	0.74	2.74	8.50%
Traffic	0.00	0.04	0.03	0.17	0.17	0.16	0.12	0.69	2.14%
Construction	0.00	0.00	0.01	0.14	0.14	0.40	4.28	4.97	15.42%
Project Management	0.21	0.04	0.07	0.16	0.16	0.17	0.50	1.31	4.06%
District Units*	0.05	0.90	1.50	1.12	0.47	0.23	0.78	5.05	15.66%
Subtotal Dist/Region Resources	0.39	3.64	4.64	4.87	3.39	5.90	9.26	32.09	99.53%
59-DES Project Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
59-DES Structures Foundation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
59-Office Engineer	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.11	0.34%
59-DES Project Management	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.04	0.12%
59-DES Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
59-DES Other Units**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Subtotal DES Resources	0.00	0.00	0.00	0.01	0.01	0.12	0.01	0.15	0.47%
TOTAL PYs	0.39	3.64	4.64	4.88	3.40	6.02	9.27	32.24	

*Admin, Plng, Maintenance

**DES Admin, DES Plng, DES Maintenance

HRS/PYS = 1758

Comments: